# LEHI FIRE DEPARTMENT



Fire Chief Dale Ekins

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# Fully involved

VOLUME XXV

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# SHIFT BRIEFINGS

#### KEY TO SHIFT ORGANIZATION

Communication is an essential part of a successful and productive shift. Many officers have been taught that information is proprietary. However, a morning briefing by the station officer can determine if a shift will be successful and productive. The shift briefing (or morning briefing) is a formal meeting to organize operations at the beginning of the

shift. A wide array of information should be communicated to the firefighters. Concerning apparatus, firefighters need to know which apparatus is out of service and which engine is missing a tool or having repairs made to the equipment. Firefighters need to also know which public education events are scheduled for the shift and who will be teaching those classes. New directives, memos and policies should be relayed and talked about. Support for policies and memos need to have the understanding and support of all of our firefighters. Upcoming training and promotional opportunities can be shared with the personnel. Crew members of each shift need to know when the crew is going to do their physical fitness for the day.

Poor communication leads to suspicion and inefficiency. Each shift should let the next shift know of any missing or damaged equipment and make sure the engines, ambulances and brush trucks are fully stocked and ready to go. We have been fortunate to have had very few instances where one shift blames another shift for failing to follow through with daily checks and cleaning.

The shift officer should hold the briefing at the beginning of every shift. It helps organize personnel and sets the tone for the remainder of the shift.

#### SHIFT BRIEFING COMPONENTS

Our captains have had their own "styles" to tweak and we have not mandated a particular meeting format but I will list a few options that will help.

#### **DAILY PRIORITIES**

One of the most important sections of the morning briefing answers questions such as: Who is riding where? Where are our part time firefighter/medics assigned? What events/training are scheduled on the calendar for our crews?

#### SCHEDULE AND APPOINTMENTS

A schedule for the shift is outlined. Personnel are advised of the prescheduled events throughout the shift and make assignments for these events. Communicating prescheduled events to everyone on duty helps to ensure the members will be prepared to make the inspection,

visit a school, or perform yearly hydrant flushing, this also includes workouts and training. The schedule has to be flexible as our calls for service is our priority and that is our main goal. "Take care of Mrs. Smith." Angie needs to be asked to help out with some of the pre-school classes if there is an emergency call that interrupts our presentation to these classes from time to time. Be sure to thank her for her assistance.

#### ANNOUNCEMENTS FOR THE DAY

Next, announcements are relayed. This may include memos from the chief, battalion chief, or station officer. This could be training opportunities, deadlines for information needed by the department, road closures and any other information review that the officer feels is important.

#### TO DO LIST

The briefing is a good mechanism for informing members of completion times for station duties. It can also mention chores such as washing the engine or turning in time sheets. Each day there is a list in each station of daily duties that are assigned for that day that need to be completed. Such reminders set the priorities and make everyone aware of what is expected of them. These to do items could also be assigned to individual firefighters and posted until they are completed and then signed off. This should include items to be completed as you finish your shift. Are all call sheets entered? Is there fuel in all vehicles? Is the kitchen clean? Is the trash taken out? etc. A briefing for the incoming officer is critical for the smooth operation of the department. Any unfinished business, phone calls needing to be returned, jobs not completed by your shift or any other information they need to follow up on needs to be conveyed to the incoming officer.

#### **BRIEFING QUESTIONS**

Save some time for "briefing questions" at the end of the session. It is a good time to promote some skill and career development. Ask each firefighter a few questions to test their knowledge about different aspects of our jobs. This keeps us from getting "stale" and "bored" as we often times get out of the habit of studying and learning as we get older and more experienced. You may even assign a firefighter to find a question to stump the rest of your crew. Challenging your crew with a ropes or knots drill or an SCBA challenge would also be appropriate.

Sample Briefing Questions:

Recite responsibilities of each unit on a fully involved structure fire.

What are the signs of an imminent collapse?

What is the policy on "holding short?"

What are the 4 areas of the NFPA 704 placard system?

#### **SUMMARY**

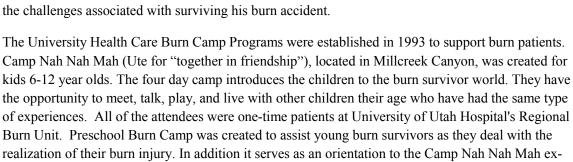
A briefing should be held on every shift. It allows essential information to be disseminated to the firefighters. Informing your personnel empowers them to complete the daily business of our fire station. The briefing helps everyone feel that they are a part of the bigger team and ensures that no one is left out.

### **BURN CAMP**

I had the opportunity in April to attend the annual Professional Firefighters of Utah (PFFU) convention held in Logan. There was a great deal of information that was shared with the group concerning issues that affect us as firefighters. As I was listening to each speaker share their thoughts, I kept searching for the nugget I could share with you in this newsletter. There were many great topics dealing with issues such as training, retirement, benefits, MDA, local and national political concerns the list goes on.

Late Friday afternoon we were scheduled to hear from the PFFU's representative to the University of Utah Burn Camp. After he gave a short presentation dealing with the business aspect of the camp he introduced us to a young man, about ten years old, who is a burn survivor and a regular Burn Camp attendee. This young man proudly walked to the

front of the room filled with firefighters and began to tell his story of how he and his mother had been burned in a propane explosion when he was four years old. He told of the painful treatments and many surgeries he had to endure during his lengthy recovery. He also shared with us that having the opportunity to attend Burn Camp has been a great support to both him and his family in dealing with the challenges associated with surviving his burn accident.



Camp Nah Nah Mah is free for the kids and is fully funded by the Professional Firefighters of Utah. Firefighters also volunteer at the camp by becoming counselors, doing cleanup and cooking for the children. It is my desire that as members of the Professional Firefighters of Lehi and the Lehi Fire Department, we get involved by donating our time and serving a meal to the campers or fulfilling whatever need they may have. This is a fantastic opportunity for us to help these kids that have gone through such a tragic event in their young lives.

perience. The Preschool Burn Camp is held on the last day of Camp Nah Nah Mah

This year's camp will run from August 3<sup>rd</sup> thru the 7<sup>th</sup>. I will keep you informed as the date grows nearer as to what type of service we can provide.



Captain Robert Stanley

### Call Totals for the Month of April...

 Station
 Fire:
 43

 Medical:
 76

 Total:
 119

 Station
 Fire:
 36

 Medical:
 42

 Total:
 78



## THERAPEUTIC HYPOTHERMIA

In the 1950's the first studies were done on a small basis, which started recognizing the positive effects of hypothermia. In 1954, Hegnauer and D'Amato showed a decrease in oxygen consumption in dogs that received hypothermic treatments. In 1959, a study by Benson et al, was the first study that showed a reduced mortality in humans when hypothermia is started after cardiac arrest. Then in 2002, the New England Journal of Medicine (NEJM) released two separate studies that were done on a larger scale that demonstrated improved survival and neurological outcomes when hypothermia was used in post cardiac arrest.

Firefighter Brandon Howard If you have not reviewed the Utah County Operating Guidelines (UCOG), it is a good idea to go over them. This article is meant to highlight the protocols, not to reword them.

Who are the ones that will receive this treatment? The UCOG's reflect the same standards that were done in the 2002 NEJM studies and they also follow the recommendations of the American Heart Association.

- Cardiac arrest with ROSC (return of spontaneous circulation)
- >18 years of age
- CPR initiated within 15 minutes of collapse
- Initial body temperature >34 degrees Celsius or > 93 degrees Fahrenheit
- GCS <9
- Endotrachial intubation with confirmed patent airway

The contraindications are found in the UCOG's

#### When ROSC occurs

The first sign that ROSC has occurred you will notice an immediate jump in capnography. Capnography needs to be placed on patients as soon as possible. It is important to remember that usually ANY CO2 reading indicates that you have intubated the trachea. When effective CPR is performed, capnography is noted in the ranges of anything above 10mmHG (torr). When ROSC occurs you will have a notable increase in capnography. This reading is immediate!

Once you finish the CPR cycle and feel a pulse, begin the ROSC procedures. Obtain a set of vital signs, including a 12lead EKG because there is a good chance they may have some ST elevation. Keep in mind when you are transporting to the hospital that you may want to request to transport to the closest appropriate hospital with a CATH lab. However, all hospitals are capable of receiving these patients.

Before we can begin the cooling process we want to have an endotrachial intubation with a confirmed patent airway. If we were using a King LT, we can use a feature on them to exchange the King for an ET tube called the bougie ramp. If you do not know about this feature, it is something to go over with your crew. But prior to cooling your patient, they should have a secured airway.

#### The cooling process

As stated in the UCOG's, we do not start the cooling process until ROSC occurs. This is done by giving the patient a rapid infusion of cold (4 degrees Celsius or 39 degrees Fahrenheit) Normal Saline at 30cc/kg bolus; however do not exceed two liters of fluids. It is strongly recommended to have bilateral IV placement, if you cannot get the IV, an IO works great and is equally as effective. Remove the patient's outer clothing while maintaining modesty and place

cold packs in the patient's arm pits and groin (an interesting note, in the 2002 NEJM they placed the ice packs on the patient's chest and head). Monitor the patient's temperature, our goal is to have it between 32-34 degrees Celsius (89.6 -93.2 degrees Fahrenheit), ideally this would be a core body temperature reading. If at any time the patient loses his or her pulse, continue CPR. Discontinue the cooling process if the patient awakens, develops an unstable arrhythmia, sustained systolic blood pressure (SBP) <80 or has severe bleeding.

#### Drugs

According to the UCOG's the preferred drug for hypotension due to anything else other than anaphalaxis or uncontrolled bleeding is Dopamine 2-20 mcg/kg/min. Currently Lehi Fire does not carry Dopamine, but we do carry another drug that can be used, Epinephrine drips. If ROSC has occurred and the patient is hypotensive, SBP<80, we can give the patient an Epinephrine drip of 2-10 mcg/min. Here are some examples of figuring drip rates for an Epi drip; put 4 mg of Epi 1:1,000 in a 500cc bag of NS, if you are using a 60 drip set, drip the rate at 60 and that will give you 8 mcg per minute, a dose within the range of the UCOG's. AHA recommends the dose of 0.1-0.5 mcg/kg/min, here is how I figured out an easy and quick way for the AHA guidelines. Put 4 mg of Epi 1:1,000 in a 500 cc bag of normal saline, that gives you 8 mcg of Epi per cc, using a 10 drip set\* set the drip rate at 30 drops per min, or 1 drop every two seconds. That will give you 24 mcg a min. This will work for patients weighing between 123-616 lbs. and of course titrate to effect.

\*Warning, while using a 10 drip set makes for easy math, don't let it get away from you! Double and even triple check the drip rate.

Vecuronium, or "Vec" is a drug that Lehi Fire just received permission to use. Vecuronium is a paralytic that currently, for Lehi Fire, is only used to stop/prevent shivering. We want to prevent shivering because shivering produces heat and burns up valuable oxygen, which we do not want when we are cooling the patient down and trying to protect muscle. More training and guidelines are soon to come with this drug but here is some information about Vecuronium:

- Adult Dose: 0.1mg/kg- standard dose 5-10mg
- Onset time: 3-5 minutes Duration: 20-45 minutes
- Prior to giving Vecuronium (paralytic) give Versed (sedative) 5-10mg. It would it be terrible knowing vou need to breathe, but can't.
- It comes in a vial with 10mg of Vecuronium that needs to reconstituted by mixing with 10cc of normal saline.



# **MAY BIRTHDAYS**

- Ernie Curwen 5/5
- Ryan Kimball 5/20
- Brandon Howard 5/20 · Ricky Evans 5/27
- Jeff Smith 5/23
- Marty Glover 5/26
- Russ Ferre 5/22

# ~ BEAUTIFY LEHI ~























Fire Station 82



#### **Engineer Jeff Smith**

# PRE-PLAN - SUBWAY

For the preplan of the month, I have chosen Subway Sandwiches Restaurant located on 50 N. 850 E. (Main Street) It is a single story structure constructed out of lightweight material. Surrounding the building is an adequate water supply coming from multiple hydrants located in the area. The closest hydrant is located on the corner of the property at (850 E. Main Street). Additional hydrants can be found along 850 east, the Tepanyaki Grill parking lot to the east, and the Alpine Credit Union parking lot located to the north. The A side of the structure will be located on Main Street. Water supply shutoff can be found on the B side of the restaurant property. Walking toward the back, you will find the electric panel and gas shut off on the C side of the building.

It is important to note that there are no fire protection systems in the business. Potential cooking fire hazards are very low. The only actual cooking that goes on in the business is in the bread ovens. All the meat is heated in warmers in the serving area. Behind the serving area is a preparation table, along with refrigerators, freezers, sinks, and storage shelves. This is a small area that will lead to an exit door leading to the C side of the building into the parking lot. This was a basic preplan without too many problems to report. The main hazard with this business is the light weight construction. This restaurant is a prime example of a building that would be cheaper to rebuild than to use an advantageous fire protection system. Keep an eye out for these businesses and remember to think of the risk vs. benefit factor.

# FEATURED CALL

On April 12, 2012 at 13:30 Station 81 was dispatched to an 81 year old female not breathing not conscious. CPR had been initiated by family members but was not in progress upon Ambulance 81 arrival at 13:35. The female patient was found lying on the drive way with her head towards the open door of a car. No signs of trauma were present. Patient was pulseless and apneic. CPR was initiated. An OPA was placed and ventilation was successful via BVM. Fast patches and 4 lead ECG was placed patient initial rhythm was asystole confirmed in two leads. IO was established, NS administered and 1 mg of Epi 1:10,000. ET tube was placed and confirmed with capnography and auscultation. Reassessed rhythm patient found to be in PEA. Administered second dose of Epi 1:10,000 1 mg. Patient regained a perfusing rhythm and spontaneous respirations at approximately 13:55. Patient's rhythm was sinus tach with respirations of 4 per minute. ROSC protocol was initiated. Cold packs were placed in the groin and axilla. IV's attempted with no success. Monitored patient's vital signs and assisted respirations enroute to hospital. Patient remained unresponsive throughout the transport. Transferred care to American Fork Hospital staff at 14:02.



Firefighter Justin Whatcott

# In the News - SHARP AWARD

#### OSHA AWARDS LEHI FIREFIGHTERS A UTAH FIRST

Cathy Allred - Daily Herald | Posted: Sunday, May 6, 2012 6:15 am



**LEHI** -- The Utah Labor Commission recognized the Lehi Fire Department earlier this week as the first public municipal entity in the state to receive an OSHA award through its Safety and Health Award Recognition Program called SHARP.

"It was a great work and a great privilege for these guys to get it," Lehi City risk manager Scott Sampson said. "We've done a lot of work, a lot of paperwork, a lot of hard work, cleaning and making sure we were up to date on all of our procedures. Everything had to be crossed and dotted and then double checked."

He said they had been working on the process to qualify for the award since October.

Utah State Labor Commissioner Sherrie Hayashi presented the awards to Mayor Bert Wilson and Lehi Fire Chief Dale Ekins, along with several of the city's staff. Each of Lehi's fire stations received a framed certificate, a plaque with the award dates and space for future renewals, and a flag with the SHARP award logo.

"It's hard to explain that it's not just a simple award, it is recognition for an exemplary health and safety program." Hayashi said. "These employers place their employee's health and well-being as the priority for their business. They have a culture of safety that permeates their organization from top management to front-line employees."

Lehi City Fire Department's two stations, 81 and 82, are the first public employers to receive this recognition in Utah, she said.

OSHA, the Occupational Safety and Health Administration, gives recognition to small employers and public employers who pass a rigorous review of their workplace safety and health programs and activities.

"The firefighters had to meet requirements for respiratory protection, department safety, apparatus safety, building safety, health -- that is where the respiratory protection came in -- there were a bunch of different parameters they had us meet in order for us to be able to achieve this award," Battalion Chief Rick Howard said.

"Now the interesting thing is that a lot of these things we already are doing" he said. "It's good to be recognized, you know, for the stuff that we do already on a day-to-day basis." Lehi City employs full-time fire fighters and paramedic response ambulances 24 hours a day, 7 days per week and maintains the highest certifications that the Utah State Bureau of Emergency Medical Services and Utah Fire & Rescue Academy offers. The in-house instructors for the department are associated with the American Heart Association, National Fire Academy, National Association of Emergency Medical Technicians, National Incident Management Sys-



tem as well as other nationally respected EMS and firefighting agencies.

"It's also interesting that we are the first public municipality to win that award," Howard said. "I thought that there would be a lot more."

Not only is the public sector not qualifying for the award, there are only a handful of private agencies who have earned the award in Utah. Sweet's Candy Company since 2004, Jennmar Corporation, 2005; Futura Industries, 2006; the Horsely Company, 2009; Balchem, 2009; Kihomac, 2011; Boart Longyear, April 2012 are listed on the Utah OSHA website as having earned the award. OSHA Utah has added Lehi Fire Department to the list as well "since April 2012."

"A lot of people get scared about OSHA and about inviting them in, you know, but OSHA was good to work with," Howard said. "They gave us a lot of help and some guidance."

To participate in the OSHA program, city officials had to consult first with OSHA staff. More information on the SHARP program is available at laborcommission.utah.gov/divisions/UOSH/SharpProgram.html.

Other Lehi city departments will not be pursuing a SHARP award for some time, according to the city's risk manager.

"No, not right now," Sampson said with emphatic conviction and laughed.



Check out the Flickr website below to see some pictures from our latest calls and events. We will keep it updated so check back often.

http://www.flickr.com/photos/fullyinvolvednewsletter/

# EMPLOYEE OF THE MONTH

Lehi City has awarded Stephen Johnson as Employee of the month for April. In his nomination memo, Captain Tim Robinson has this to say. "Steve is a very competitive person, and does not like to lose any challenge he faces. I have physical scars, and emotional damage to prove it. He took the challenge of becoming a paramedic very serious, and dedicated himself to accomplish this goal. It has been a welcome relief to finally have the captain's office clear of paramedic books and study material. Steve put in countless hours in the classroom and at the firehouse preparing for the opportunity to test for the elusive "red" patch. It was difficult for Steve to take time away from family and friends over the past year. Next to his family, hunting and fishing are very special to Steve. For the most part,

Steve took a "time out" from something that he enjoys so much. While watching Steve try and balance family, work, and school, he impressed me with his determination to make it all work. Relationships were tested as Steve was stressed beyond his breaking point. Yes we are all still friends, but Kevin will never be the same. I am proud of what he has accomplished, and what he has done for our department. He is an outstanding paramedic and firefighter, and I am honored to have him on my crew. If you haven't had a chance to meet Stephen Johnson, he is the blond haired kid at station 82 with the big smile. Oh yea, he walks on water now. Congratulations Steve, you deserve to go fishing. Just don't forget to invite us." Congratulations Steve on this well deserved award!



**Paramedic Stephen Johnson** 

# **CURRENT EVENTS**

Congratulations to Jeff Smith, Brett Fraser, Steve Berendson, Cory Taylor, Darren Wright & Jon Ham-

**mond**. They recently finished a Haz-Mat Technician course put on by the Utah Valley Metro Special Response Team (UVMSRT). The Lehi City Fire Department will benefit tremendously for having these individuals trained in this challenging discipline. Make sure you congratulate them when you see them.



# **CURRENT EVENTS CONT.**

The first ever Lehi Fire Association Easter Egg Hunt was a success. Thanks to Ryan Kimball, Kevin Beck and all others that helped make this such a fun event for the family!



On April 17, 2012 at 10:15 A.M. an earthquake struck the great state of Utah! Lehi Fire Department participated in the Great Utah Shakeout Earthquake Drill along with many other city departments and other agencies across the state.



# **May 2012**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	CERT Leadership Meeting	4	Bountiful Baskets Food Co-op - station 82
6	7	8	9	10 Officer's Meeting @ station 82	11	Bountiful Baskets Food Co-op - station 81 & 82
13	14 Payroll	SRT Leadership meeting @ Orem	16	17 SRT Training- Rope Tech Class CERT Refresher class with PD	18 SRT Training- Rope Tech Class	Bountiful Baskets Food Co-op - station 81 & 82
20	21	22	23 SRT Training- Rope Tech Class	24 SRT Training- Rope Tech Class Open Enrollment Meeting 10am	25	26 Bountiful Baskets Food Co-op - station 81 & 82
27	Memorial Day City Office's Closed	SRT Training- Rope Tech Class Payroll	30 SRT Training- Rope Tech Class	31		